

**SECTION - C**  
**(DESCRIPTIVE QUESTIONS)**

Q - 14

(a) What is meant by Young's modulus of elasticity? How will you show that steel is more elastic than rubber?

(b) A metal bar of cross sectional area  $1000 \text{ mm}^2$  is 4m long. A force of 5000 N increase its length by 0.25 mm. find young's modulus of the metal.

Q - 15

(a) Define force? How does Newton's Second Law of motion help in the measurement of force?

(b) What happens to the potential energy of a body, when dropped from certain height?

Q - 16

(a) What are spherical mirrors? Give some uses of spherical mirrors.

(b) The focal length of a convex lens is 10 cm. where should an image be placed to get (a) a real image (b) a virtual image twice the size of the objects?